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## NOTICE OF ALLOWANCE AND FEE(S) DUE

022879 7590 07/20/2005

HEWLETT PACKARD COMPANY  
P O BOX 272400, 3404 E. HARMONY ROAD  
INTELLECTUAL PROPERTY ADMINISTRATION  
FORT COLLINS, CO 80527-2400

EXAMINER

VAN DOREN, BETH

ART UNIT

PAPER NUMBER

3623

DATE MAILED: 07/20/2005

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/626,191	07/28/2000	Dirk M. Beycr	10001529-1	3159

TITLE OF INVENTION: PROFILE-BASD PRODUCT DEMAND FORECASTING

APPLN. TYPE	SMALL ENTITY	ISSUE FEE	PUBLICATION FEE	TOTAL FEE(S) DUE	DATE DUE
nonprovisional	NO	\$1400	\$0	\$1400	10/20/2005

THE APPLICATION IDENTIFIED ABOVE HAS BEEN EXAMINED AND IS ALLOWED FOR ISSUANCE AS A PATENT. **PROSECUTION ON THE MERITS IS CLOSED.** THIS NOTICE OF ALLOWANCE IS NOT A GRANT OF PATENT RIGHTS. THIS APPLICATION IS SUBJECT TO WITHDRAWAL FROM ISSUE AT THE INITIATIVE OF THE OFFICE OR UPON PETITION BY THE APPLICANT. SEE 37 CFR 1.313 AND MPEP 1308.

THE ISSUE FEE AND PUBLICATION FEE (IF REQUIRED) MUST BE PAID WITHIN **THREE MONTHS** FROM THE MAILING DATE OF THIS NOTICE OR THIS APPLICATION SHALL BE REGARDED AS ABANDONED. **THIS STATUTORY PERIOD CANNOT BE EXTENDED.** SEE 35 U.S.C. 151. THE ISSUE FEE DUE INDICATED ABOVE REFLECTS A CREDIT FOR ANY PREVIOUSLY PAID ISSUE FEE APPLIED IN THIS APPLICATION. THE PTOL-85B (OR AN EQUIVALENT) MUST BE RETURNED WITHIN THIS PERIOD EVEN IF NO FEE IS DUE OR THE APPLICATION WILL BE REGARDED AS ABANDONED.

### HOW TO REPLY TO THIS NOTICE:

I. Review the SMALL ENTITY status shown above.

If the SMALL ENTITY is shown as YES, verify your current SMALL ENTITY status:

A. If the status is the same, pay the TOTAL FEE(S) DUE shown above.

B. If the status above is to be removed, check box 5b on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and twice the amount of the ISSUE FEE shown above, or

If the SMALL ENTITY is shown as NO:

A. Pay TOTAL FEE(S) DUE shown above, or

B. If applicant claimed SMALL ENTITY status before, or is now claiming SMALL ENTITY status, check box 5a on Part B - Fee(s) Transmittal and pay the PUBLICATION FEE (if required) and 1/2 the ISSUE FEE shown above.

II. PART B - FEE(S) TRANSMITTAL should be completed and returned to the United States Patent and Trademark Office (USPTO) with your ISSUE FEE and PUBLICATION FEE (if required). Even if the fee(s) have already been paid, Part B - Fee(s) Transmittal should be completed and returned. If you are charging the fee(s) to your deposit account, section "4b" of Part B - Fee(s) Transmittal should be completed and an extra copy of the form should be submitted.

III. All communications regarding this application must give the application number. Please direct all communications prior to issuance to Mail Stop ISSUE FEE unless advised to the contrary.

**IMPORTANT REMINDER:** Utility patents issuing on applications filed on or after Dec. 12, 1980 may require payment of maintenance fees. It is patentee's responsibility to ensure timely payment of maintenance fees when due.

# **PART B - FEE(S) TRANSMITTAL**

Complete and send this form, together with applicable fee(s), to: **Mail**

**Mail Stop ISSUE FEE  
Commissioner for Patents  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
(571) 273-2885**

or **Fax**

**INSTRUCTIONS:** This form should be used for transmitting the ISSUE FEE and PUBLICATION FEE (if required). Blocks 1 through 5 should be completed where appropriate. All further correspondence including the Patent, advance orders and notification of maintenance fees will be mailed to the current correspondence address as indicated unless corrected below or directed otherwise in Block 1, by (a) specifying a new correspondence address; and/or (b) indicating a separate "FEE ADDRESS" for maintenance fee notifications.

**CURRENT CORRESPONDENCE ADDRESS** (Note: Use Block 1 for any change of address)

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Note: A certificate of mailing can only be used for domestic mailings of the Fee(s) Transmittal. This certificate cannot be used for any other accompanying papers. Each additional paper, such as an assignment or formal drawing, must have its own certificate of mailing or transmission.

## **Certificate of Mailing or Transmission**

I hereby certify that this Fee(s) Transmittal is being deposited with the United States Postal Service with sufficient postage for first class mail in an envelope addressed to the Mail Stop ISSUE FEE address above, or being facsimile transmitted to the USPTO (571) 273-2885, on the date indicated below.

(Depositor's name)
(Signature)
(Date)

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/626,191	07/28/2000	Dirk M. Beyer	10001529-1	3159

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nonprovisional	NO	\$1400	\$0	\$1400	10/20/2005

EXAMINER	ART UNIT	CLASS-SUBCLASS
VAN DOREN, BETH	3623	705-010000

1. Change of correspondence address or indication of "Fee Address" (37 CFR 1.363).

- ☐ Change of correspondence address (or Change of Correspondence Address form PTO/SB/122) attached.
- ☐ "Fee Address" indication (or "Fee Address" Indication form PTO/SB/47; Rev 03-02 or more recent) attached. Use of a Customer Number is required.

2. For printing on the patent front page, list

- (1) the names of up to 3 registered patent attorneys or agents OR, alternatively, 1 \_\_\_\_\_
- (2) the name of a single firm (having as a member a registered attorney or agent) and the names of up to 2 registered patent attorneys or agents. If no name is listed, no name will be printed. 2 \_\_\_\_\_
- 3 \_\_\_\_\_

3. ASSIGNEE NAME AND RESIDENCE DATA TO BE PRINTED ON THE PATENT (print or type)

PLEASE NOTE: Unless an assignee is identified below, no assignee data will appear on the patent. If an assignee is identified below, the document has been filed for recordation as set forth in 37 CFR 3.11. Completion of this form is NOT a substitute for filing an assignment.

(A) NAME OF ASSIGNEE

(B) RESIDENCE: (CITY and STATE OR COUNTRY)

Please check the appropriate assignee category or categories (will not be printed on the patent): ☐ Individual ☐ Corporation or other private group entity ☐ Government

4a. The following fee(s) are enclosed:

- ☐ Issue Fee
- ☐ Publication Fee (No small entity discount permitted)
- ☐ Advance Order - # of Copies \_\_\_\_\_

4b. Payment of Fee(s):

- ☐ A check in the amount of the fee(s) is enclosed.
- ☐ Payment by credit card. Form PTO-2038 is attached.
- ☐ The Director is hereby authorized by charge the required fee(s), or credit any overpayment, to Deposit Account Number \_\_\_\_\_ (enclose an extra copy of this form).

5. Change in Entity Status (from status indicated above)

- ☐ a. Applicant claims SMALL ENTITY status. See 37 CFR 1.27. ☐ b. Applicant is no longer claiming SMALL ENTITY status. See 37 CFR 1.27(g)(2).

The Director of the USPTO is requested to apply the Issue Fee and Publication Fee (if any) or to re-apply any previously paid issue fee to the application identified above. NOTE: The Issue Fee and Publication Fee (if required) will not be accepted from anyone other than the applicant; a registered attorney or agent; or the assignee or other party in interest as shown by the records of the United States Patent and Trademark Office.

Authorized Signature \_\_\_\_\_

Date \_\_\_\_\_

Typed or printed name \_\_\_\_\_

Registration No. \_\_\_\_\_

This collection of information is required by 37 CFR 1.311. The information is required to obtain or retain a benefit by the public which is to file (and by the USPTO to process) an application. Confidentiality is governed by 35 U.S.C. 122 and 37 CFR 1.14. This collection is estimated to take 12 minutes to complete, including gathering, preparing, and submitting the completed application form to the USPTO. Time will vary depending upon the individual case. Any comments on the amount of time you require to complete this form and/or suggestions for reducing this burden, should be sent to the Chief Information Officer, U.S. Patent and Trademark Office, U.S. Department of Commerce, P.O. Box 1450, Alexandria, Virginia 22313-1450. DO NOT SEND FEES OR COMPLETED FORMS TO THIS ADDRESS. SEND TO: Commissioner for Patents, P.O. Box 1450, Alexandria, Virginia 22313-1450.

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## Determination of Patent Term Adjustment under 35 U.S.C. 154 (b) (application filed on or after May 29, 2000)

The Patent Term Adjustment to date is 1041 day(s). If the issue fee is paid on the date that is three months after the mailing date of this notice and the patent issues on the Tuesday before the date that is 28 weeks (six and a half months) after the mailing date of this notice, the Patent Term Adjustment will be 1041 day(s).

If a Continued Prosecution Application (CPA) was filed in the above-identified application, the filing date that determines Patent Term Adjustment is the filing date of the most recent CPA.

Applicant will be able to obtain more detailed information by accessing the Patent Application Information Retrieval (PAIR) WEB site (<http://pair.uspto.gov>).

Any questions regarding the Patent Term Extension or Adjustment determination should be directed to the Office of Patent Legal Administration at (571) 272-7702. Questions relating to issue and publication fee payments should be directed to the Customer Service Center of the Office of Patent Publication at (703) 305-8283.

# Notice of Allowability

Application No.

09/626,191

Examiner

Beth Van Doren

Applicant(s)

BEYER ET AL.

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address--

All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. **THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS.** This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. ☒ This communication is responsive to the Board decision dated 04/20/2005 (paper number 16).
2. ☒ The allowed claim(s) is/are 1-5,8-10,12,13 and 15.
3. ☒ The drawings filed on 28 July 2000 are accepted by the Examiner.
4. ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
  - a) ☐ All    b) ☐ Some\*    c) ☐ None    of the:
    1. ☐ Certified copies of the priority documents have been received.
    2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
    3. ☐ Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\* Certified copies not received: \_\_\_\_\_.

Applicant has THREE MONTHS FROM THE "MAILING DATE" of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.

**THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.**

5. ☐ A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
  6. ☐ CORRECTED DRAWINGS ( as "replacement sheets") must be submitted.
    - (a) ☐ including changes required by the Notice of Draftsperson's Patent Drawing Review ( PTO-948) attached
      - 1) ☐ hereto or 2) ☐ to Paper No./Mail Date \_\_\_\_\_.
    - (b) ☐ including changes required by the attached Examiner's Amendment / Comment or in the Office action of Paper No./Mail Date \_\_\_\_\_.
- Identifying indicia such as the application number (see 37 CFR 1.84(c)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. ☐ DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

## Attachment(s)

1. ☒ Notice of References Cited (PTO-892)
2. ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. ☐ Information Disclosure Statements (PTO-1449 or PTO/SB/08),  
Paper No./Mail Date \_\_\_\_\_
4. ☐ Examiner's Comment Regarding Requirement for Deposit  
of Biological Material
5. ☐ Notice of Informal Patent Application (PTO-152)
6. ☐ Interview Summary (PTO-413),  
Paper No./Mail Date \_\_\_\_\_
7. ☐ Examiner's Amendment/Comment
8. ☒ Examiner's Statement of Reasons for Allowance
9. ☐ Other \_\_\_\_\_

  
**TARIQ R. HAFIZ**  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER

### DETAILED ACTION

1 The following is in response to the decision by the Board of Patent Appeals and Interferences mailed 04/20/2005. Claims 1-5, 8-10, 12-13, and 15 are pending and allowable. Therefore, the following response includes an examiner's statement of reasons for allowance.

#### *Reasons for Allowance*

2. Claims 1-5, 8-10, 12-13, and 15 are allowed.

3. The following is an examiner's statement of reasons for allowance: None of the prior art of record, taken individually or in any combination, teach, inter alia, generating a demand profile of a new product yet to be introduced based on demand profiles of similar products already introduced, wherein the demand profiles of the similar products are normalized and averaged to obtain the demand profile of the new product, and then generating (or extrapolating) the total life-cycle demand of a new product by calculating an average demand per time period of each of the similar products, associating each average demand per time period with a date that represents a midpoint of the life-cycle of each similar product, and calculating an estimate of the average demand per time period at the date of the midpoint of the life-cycle of the new product.

The prior art references most closely resembling the Applicant's claimed invention are Technology Strategy, Inc. ([www.grosprofit.com](http://www.grosprofit.com)), Huang et al. (U.S. 6,151,582), and Ando (U.S. 6,032,125). the features of the service performed by Technology Strategy, Inc. are disclosed in the articles "Looking Back at Fashion's Future" by Ackerman and "Merchants Try Complex Math Tools to Improve Inventory Decisions" by Koloszyc and the screenshots of [grossprofit.com](http://grossprofit.com) from [archive.org](http://archive.org).

First, Technology Strategy, Inc. discloses a system that stores historical sales data of products and uses this data to perform demand planning in subsequent seasons. In the instance where demand planning needs to occur for a new product not yet introduced, the system utilizes the demand data of products already introduced and similar to the new product to create a forecast for the new product. This forecast includes life-cycle demand information, life span, and pricing strategies associated with the product. Technology Strategy, Inc. forecasts using mathematical techniques, such as simulation and statistics, on the stored data to determine the forecast. The system then generates a graph representing forecasted points in the life-cycle of the new product and sales values associated with those points in the season. As the season progresses, this forecast is updated against real, occurring data. However, Technology Strategy, Inc. does not expressly disclose the demand profiles of the similar products are normalized and averaged to obtain the demand profile of the new product or calculating the life-cycle demand of a new product by averaging demand per time period of each of the similar products and associating each average with a date that represents a midpoint of the life-cycle, and then calculating an estimate of the average demand per time period at the date of the midpoint of the life-cycle of the new product.

Second, Huang et al. discloses analyzing market data and past demand history to forecast future demand, the forecast including an analysis of past history data, future forecast data, and the analysis of forecast errors. The system also performs integrated production, sales and inventory (PSI) planning that includes generating forecasts for new products and managing product transitions. Since no historic sales data is available for the new products, historic data for similar products (such as products the new product is replacing) is used in the computation of

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the forecast. Huang et al. discloses computing, displaying (tables and graphs), and analyzing new products and when the new product accumulates enough of its own sales data, the system performs another computation for the new product. Huang et al. also discusses normalizing data to remove the unwanted effects ("noise") from the data set, however the data being normalized is associated with seasonal factors. Therefore, Huang et al. does not disclose that data associated with the demand profiles of the similar products is normalized and further does not disclose calculating the life-cycle demand of a new product by averaging demand per time period of each of the similar products, associating each average with a midpoint, and then calculating an estimate of the average demand at the date of the midpoint of the life-cycle of the new product.

Third, Ando discloses a demand forecasting system that forecasts demand using models and the historical data from the same periods of the previous year and current sales data. Ando further discloses forecasting values for a new product by using real sales result values of similar products. Ando plots the calculated data concerning forecasted sales on a forecast graph, wherein the x-axis of the graph represents the time period of the selling period in the format of weeks (i.e. week 1, week 2, week 3, etc.) and the y-axis represents sales value (i.e. the amount of products sold). Therefore, at the midpoint of the plotted weeks, the forecasted value for that week is represented. However, Ando does not expressly disclose that the demand profile of the similar product is normalized and averaged to obtain the demand profile of the new product, or that the total life-cycle demand of a new product is generated/extrapolated by calculating an average demand per time period of each of the similar products and associating each average demand per time period with a date that represents a midpoint of the life-cycle, and calculating

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an estimate of the average demand per time period at the date of the midpoint of the life-cycle of the new product.

*Examiner's Notes*

4. Examiner notes that in claim 10 at least the steps of "generating a total life-cycle demand of a new product based on the historical demand data of the similar products" and "generating the life-cycle product demand forecast for the new product based on the demand profile and total life-cycle demand of the new product" are understood to be performed using a computer system with computer modules that are executed to carry out the steps, as disclosed in figure 1 and the specification, page 7, line 23-page 8, line 12, and page 9, lines 16-page 10, line 4.

5. The Application having been allowed, formal drawings are required in response to this Office Action.

6. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement for Reasons for Allowance".

*Conclusion*

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Lee et al. (U.S. 5,712,985) discloses a demand forecasting system that uses normalization in the processing of data.

Huang et al. (U.S. 6,151,582) discloses generating forecasts using historical data, demand profiles, forecasting demand for new products and preparing for new product introduction.



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Yoshimoto (JP 410315100) teaches using a demand state for a product group to adjust production planning.

i2 Technologies ("Rhythm Software") discloses product life-cycle management for a product during it's launch phase (i.e. a new product to market).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Beth Van Doren whose telephone number is (571) 272-6737.

The examiner can normally be reached on M-F, 8:30-5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Tariq Hafiz can be reached on (571) 272-6729. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

*bvd*

bvd

July 18, 2005

  
TARIQ R. HAFIZ  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 3600